

#### ABSTRACT

An inverter for driving multiple discharge lamps. The inverter has a transformer for driving a first discharge lamp and a second discharge lamp. The inverter also  
5 includes a first balancing circuit connected in series with the first discharge lamp and a second balancing circuit connected in series with the second discharge lamp. According to a matching signal, the first and the second balancing circuits adjust a first lamp current  
10 through the first discharge lamp and a second lamp current through the second discharge lamp, respectively. A comparator is provided to receive a first sensing signal from the first balancing circuit and a second sensing signal from the second balancing circuit.  
15 Comparing the first sensing signal with the second sensing signal, the comparator generates the matching signal which controls the first and the second balancing circuits to equalize the first lamp current and the second lamp current.